REMARKS

In response to the Office Action dated March 18, 2010 and the Interview Summary dated June 11, 2010, Applicants provide the following remarks that are made without prejudice to the prosecution of any subject matter in a related divisional, continuation or continuation-in-part application. Claims 1-64 are pending and under examination in the application. Claim 1 has been amended following a discussion with Examiner Audet to clarify one aspect of the invention to positively recite the non-cleaved feature of the quenching agent. Support for this amendment can be found, for example, at paragraph 11, lines 12-14. Favorable reconsideration of the subject application is respectfully requested in view of the following remarks.

EXAMINER INTERVIEW OF JUNE 8, 2010

Applicants wish to thank Examiner Audet for the courtesy of the telephonic interview of June 8, 2010. During the course of the interview the cited art of Singh (U.S. Patent Application No. 2002/0197649) was discussed at length and how the present invention is non-obvious over the same. In particular it was pointed out that Singh cannot be modified for the purpose of the present invention rendering Singh non-applicable for an obviousness rejection. In short, it was pointed out that Singh requires the cleavage of a photosensitizer from a complex (referred to many times as PS2 by Singh) to allow detection by a microfluidic or other type of device in a diagnostic, thereby leaving the quenching agent behind on the bound target. Singh is directed to detection of analytes such as polypeptides or oligonucleotides and requires that the photosensitizer float away and into solution for a detectable signal in a removed device. In contrast, in the present invention the photosensitizer remains located at the site of binding to have an effect on the tissue and no element is cleaved. To this end neither the cleavable conjugate of Singh nor the non-cleaved conjugate of the present invention could be adapted to work in each application as it would require a completely opposite function to be bestowed on the conjugate. The ability to utilize a displaceable quenching agent of the present invention yields unexpected and surprising advantages in that it allows for the ability to administer a

conjugate providing both quenching agent and photosensitizing agent on one complex, wherein the photosensitizing agent only becomes active at the specific target site when bound thereto. Singh is drawn merely to detection of analytes in samples and requires molecular cleavage to be active.

CLAIM REJECTIONS UNDER 35 U.S.C. § 103(A)

Claims 1-64 stand rejected under 35 U.S.C. § 103(a), as allegedly being unpatentable over Singh (2002/0197649). Specifically, the Action indicates that the Office believes that Singh teach overlapping structural components. Further, the Examiner suggests providing evidence of surprising results or amendment to positively claim a distinct combination.

Applicants respectfully traverse this basis for rejection and submit that the present invention is non-obvious for the reasons noted above. Nevertheless, in order to expedite prosecution, claim 1 has been modified to positively claim one aspect of the invention related to the steric displacement of the quenching agent upon binding to the target site. The language added to claim 1 finds support at least at paragraph 11, lines 12-14.

Applicants respectfully submit that while Singh may teach similar components of the claimed composition, one having skill in the art would recognize that the conjugates of Singh cannot be adapted to become the functional conjugates of the present invention. For example, Singh's conjugates require either a singlet oxygen species from an excited photosensitizer or nuclease to **cleave** the cleavage tags (*e.g.,* Fig. 1A, *e.g.*, eTagk; Fig. 1B, *e.g.*, cTagk; Fig. 2C, *e.g.*, PS-Mk) to achieve fluorescence at a separate detection device, such as a microfluidic detector.

The Action alleges that Singh teaches conjugates for the same purpose as the presently claimed conjugates, namely using a quenching agent to optimize the photosensitizer before activation. Applicants respectfully disagree.

One having skill in the art would appreciate that in order to achieve fluorescence, the photosensitizer or fluorophore of Singh **must be cleaved and released** from the conjugate comprising the targeting moiety and the quenching agent, which remain bound to the target tissue. In contrast, the present invention does not involve cleavage of either the

fluorophore/photosensitizer or the quenching agent, and in fact, cleavage would render the presently claimed conjugates **inoperable**. Assuming *arguendo*, that one modified the conjugates of Singh so that they lacked cleavage sites, such conjugates would be inoperable because they would always be proximal to the quenching molecule and thus the photosensitizing agent would always be quenched. Thus, Singh teaches away from the presently claimed conjugates, in that, the fluorophore/photosensitizer of Singh must be released from the target site in order to function; whereas, the presently claimed conjugates must remain bound to the target tissues in order for the fluorophore/photosensitizer to remain operable (see, *e.g.,* Figure 1 of the as-filed specification). Accordingly, Applicants submit that if a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. M.P.E.P. § 2143.01, citing *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984). If there is no motivation to make the proposed modification then there is no *prima facie* case of obviousness. Nevertheless, as stated above, claim 1 has been amended to more particularly point out one aspect of the present invention and to more clearly distinguish the cited art and therefore expedite prosecution.

Accordingly, Applicants submit that not only is the invention non-obvious, the present art does not create a prima facie case of obviousness. Reconsideration and withdrawal of this basis for rejection is respectfully requested.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

All of the claims remaining in the application are now believed to be allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

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